

## Disparities in Hypertension and Cardiovascular Disease in Blacks: The Critical Role of Medication Adherence

The following is a synopsis of “Disparities in hypertension and cardiovascular disease in blacks: the critical role of medication adherence,” which was published in October 2017 in the *Journal of Clinical Hypertension*.



### What is already known on this topic?

Black people are two to three times as likely as whites to die of preventable heart disease and stroke. Blacks are also less likely to have adequate control of their blood pressure or use effective treatments for hypertension. These gaps in morbidity and mortality are unacceptable in light of the fact that no biological explanation exists.

Medication nonadherence continues to be a leading cause of uncontrolled high blood pressure, which can lead to heart disease, stroke, and chronic kidney disease. Improving medication adherence may help reduce cardiovascular disease (CVD) and death and reduce the persistent gap in health outcomes between racial/ethnic groups in the United States. But reasons for medication nonadherence are complex and influenced by many factors. No single intervention has proved effective at enhancing adherence in all patients and health systems.

### What is added by this article?

The authors of this article sought to identify the causes of persistent racial disparities and of medication nonadherence in blacks and to determine strategies to address these two related issues. The authors conducted a literature search of PubMed, ERIC, and the Cochrane Database of Systematic Reviews. The inclusion criteria were English-language articles

published in peer-reviewed journals between 2014 and 2016 that emphasized the current status of health disparity issues, and older, relevant studies gathered from cross-searching reference lists of more recent articles.

Based on the literature review, the authors found two key social determinants that negatively affect medication adherence and disparity in blacks:

- 1. Poor communication between patient and provider.** Studies revealed that black patients' perception of hypertension as episodic and symptomatic led to infrequent medication use. Reconciling the differences in patient-provider understanding and cultural beliefs may help these patients accept and adhere to their medications. An Agency for Healthcare Research and Quality survey showed that reports of poor communication with health care providers were driven by race and financial income.
- 2. Lower socioeconomic status.** Higher rates of medication adherence were found in men, whites, elderly people, and people living in areas with higher education rates and higher income. Among U.S. adults who did not take their medications as prescribed in order to save money, the poorest individuals were the most likely to be nonadherent. In addition, deaths due to CVD and stroke

were highest in southeastern states. Areas with higher preventable death rates correlated with the CDC-mapped areas of poverty, unemployment, education, and lack of health insurance.

The authors noted eight promising practical approaches to addressing medication adherence with the potential to alleviate disparities:

1. **Patient engagement:** When providers engage patients in their health care, those patients are better educated to make well-informed decisions about their care.
2. **Consumer-directed health care:** Employers can offer health plans that require their employees to pay a portion “out of pocket,” encouraging patients to be engaged in their health care decisions and spending.
3. **Patient portals:** Online portals can allow patients to request prescription refills electronically, among other benefits. However, blacks are twice as likely to have limited access to a personal computer or the Internet as whites are.
4. **Smart apps and text messages:** Digital interventions have been associated with improved CVD outcomes. But there are challenges involving ease of use, cost, and adoption of these apps by blacks and people of low socioeconomic status).
5. **Digital pillboxes and pill bottles:** Although no specific data in black patients was noted, electronic pillboxes and pill bottles have been shown to significantly increase medication adherence.
6. **Pharmacist-led engagement:** Pharmacist-led interventions conducted in collaboration with other providers have been shown to reduce blood pressure and improve medication adherence in minority patients and those of lower socioeconomic status.
7. **Cardiac rehabilitation:** The use of cardiac rehabilitation has shown to improve medication adherence and CVD risk over time. This particular strategy has been underutilized in minority patients.
8. **Cognitive-based behavior:** Health care providers can use tools like motivational interviewing to help inspire positive changes in a patient’s lifestyle and personal health goals.

## What are the implications of these findings?

This study was a comprehensive examination of the barriers and potential solutions to medication adherence in this significant patient population. Many of the eight potential solutions can be applied to improve poor patient–provider communication. Low socioeconomic status seemed to limit patients’ access to a number of interventions, although pharmacist-led engagement appeared to have potential for reaching those patients. Moreover, the one-size-fits-all character of adherence interventions limits their impact. These approaches and innovative technologies need to be designed in a way that is culturally accepted, accessible, and clinically effective for a diverse population, including black patients. Engaging patients with a variety of strategies may help combat the many factors that contribute to nonadherence in black patients; however, the overall effect of the eight practical approaches to addressing medication adherence on racial/ethnic disparities is still unknown. In order to see progress in population-based national health status, attention can be given and action taken to resolve racial, ethnic, and social determinants of health disparities in health care outcomes. to other countries. Additionally, the study did not examine adherence rates by specific diseases or disorders.

## Resources

American Heart Association  
*Cardiovascular Health in African Americans*  
<http://circ.ahajournals.org/content/early/2017/10/20/CIR.0000000000000534>

Million Hearts®  
*Improving Medication Adherence Among Patients with Hypertension*  
[https://millionhearts.hhs.gov/files/TipSheet\\_HCP\\_MedAdherence.pdf](https://millionhearts.hhs.gov/files/TipSheet_HCP_MedAdherence.pdf)

Robert Wood Johnson Foundation  
*Highlights from Overcoming Obstacles to Health in 2013 and Beyond*  
[https://www.rwjf.org/content/dam/farm/reports/reports/2013/rwjf406474/subassets/rwjf406474\\_1](https://www.rwjf.org/content/dam/farm/reports/reports/2013/rwjf406474/subassets/rwjf406474_1)

## Citation

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